UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVIDE LIBENZI and VICTOR KOUZNETSOV

Appeal 2007-0830
Application 10/061,415
Technology Center 2100

Decided: May 16, 2007

Before JAMES D. THOMAS, LEE E. BARRETT, and ROBERT E. NAPPI *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 of the final rejection of claims 1 through 10, 13 through 25, 28 through 38, 40 through 47, and 49 through 55. We affirm in part.

INVENTION

The invention is directed to a system for passively screening data in a data stream at a network boundary. See page 4 of Appellants' Specification. Claim 1 is representative of the invention and reproduced below:

> 1. A system for providing passive screening of transient messages in a distributed computing environment comprising:
>
> a network interface passively monitoring a transient packet stream at a network boundary comprising receiving incoming datagrams structured in compliance with a network protocol layer;
>
> a packet receiver reassembling one or more of the incoming datagrams into a segment structured in compliance with a transport protocol layer;
>
> an antivirus scanner scanning contents of the reassembled segment for a presence of at least one of a computer virus and malware to identify infected message contents; and
>
> a protocol-specific module processing each reassembled datagram based on the transport protocol layer employed by the reassembled datagram.

REFERENCES

The references relied upon by the Examiner are:

Hailpern	US 6,275,937 B1	Aug. 14, 2001
Maher	US 6,381,242 B1	Apr. 30, 2002 (filed Aug. 29, 2000)
Epstein	US 6,684,329 B1	Jan. 27, 2004 (filed Dec. 30, 1999)
Bates	US 6,785,732 B1	Aug. 31, 2004 (filed Sep. 11, 2000)

W. Richard Stevens, *TCP/IP Illustrated, Volume 1, The Protocols*, Addison-Wesley, 6-11 (1994)

OSI Model, Wikipedia, http://en.wikipedia.org/wiki/OSI_model (last visited Jun. 1, 2006).

REJECTIONS AT ISSUE

Claims 32 through 38, 40 through 47, and 49 through 54 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to meet the written description requirement.[1] The Examiner's rejection is set forth on pages 3 and 4 of the Answer.

Claims 1 through 10, 13 through 14, 16 through 25, 28, 29, 31, and 55 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Maher. The Examiner's rejection is set forth on pages 5 through 8 of the Answer.

Claims 32 through 35, 38, 41 through 44, 47, and 50 through 52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Maher in view of Stevens. The Examiner's rejection is on pages 8 through 12 of the Answer.

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[1] We note the final rejection also contains an objection to the Specification which corresponds to the rejection under 35 U.S.C. § 112, first paragraph. Appellants have presented arguments directed to this objection (Br. 9). The Examiner does not address the merits of these arguments but states that they relate to a petitionable matter not an appealable matter (Answer 14). Where objections contain the same issues as rejections before us, we will consider the merits of the objection. In this case, the objection to the Specification goes part and parcel with the rejection under 35 U.S.C. § 112, first paragraph; therefore, we consider the rejection of the claims under 35 U.S.C. § 112, first paragraph, and the objection to the Specification as one issue.

Claims 15, 30, 40, and 49 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Maher in view of Hailpern. The Examiner's rejection is on pages 12 and 13 of the Answer.

Claims 36, 37, 45, and 46 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Maher in view of Bates. The Examiner's rejection is on page 13 of the Answer.

Claims 53 and 54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Maher in view of Epstein. The Examiner's rejection is on pages 13 and 14 of the Answer.

Throughout the opinion, we make reference to the Brief and Reply Brief (filed Apr. 3, 2006 and Aug. 16, 2006 respectively), and the Answer (mailed Jun. 16, 2006) for the respective details thereof.

ISSUES

Appellants contend that the Examiner's rejection based 35 U.S.C. § 112, first paragraph, is in error. Specifically, Appellants argue that the Examiner's interpretation of independent claims 32 and 41 is in error, and that the claims do not necessarily require that each separate module process each datagram. The Appellants point to page 7, line 29 through page 8, line 5 of the Specification to provide support for the limitations of claims 32 and 41. Further, with respect to claims 53 and 54, Appellants also point to the same passage of the Specification to provide support for the scanning submodules. (Br. 10.)

Appellants contend that the Examiner's rejections based upon the patent to Maher are in error. Specifically, Appellants argue that Maher does not teach passive screening as recited in the independent claims. (Br. 11,

12.) Further, Appellants argue that Maher does not teach or make obvious the step of receiving copies of datagrams into an incoming packet queue as recited in independent claims 32 and 41.[2] (Br. 18.)

The Examiner contends that the rejection based 35 U.S.C. § 112, first paragraph, is proper. The Examiner states that independent claims 32 and 41 clearly recite that each of a plurality of modules process each datagram and that the passage of the originally filed Specification cited by Appellants does support such a feature. (Answer 15.) Further, with respect to claims 53 and 54, the Examiner states that the Specification discusses each submodule retrieving a packet for scanning, but does not teach that the submodule performs the scanning as claimed.

The Examiner contends that the rejections based upon Maher are proper. The Examiner states that the term "passive" is not defined in Appellants' Specification. To define the term "passive," the Examiner cites a dictionary definition of "receiving or subjected to an action without responding or initiating an action in return." (Answer 16.) Applying this definition, the Examiner finds that Maher's device is passive "because it does not respond to the data that is received." (Answer 17.) Additionally, the Examiner states that when data is transmitted, the receiving end does not receive a physical object but instead receives signals which are interpreted to recreate the data. As such, the Examiner reasons that the signals received by

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[2] We note that Appellants have presented further arguments for the rejection based upon 35 U.S.C. § 102(e) and each of the different rejections based upon 35 U.S.C. § 103(a). However, for the reasons stated *infra,* the issues these contentions raise are dispositive of all of the rejections before us.

Maher's device are used to recreate the data and that as such the recreated data is a copy of the data.

The Appellants' contention presents us with several issues: 1) whether the limitation in claims 32 and 41 of "wherein each of a plurality of protocol-specific modules process each reassembled datagram based on an upper protocol layer employed by the reassembled datagram" is supported by Appellants' disclosure, 2) whether the limitation in claim 53 of "protocol-specific scanning submodules, each protocol-specific scanning submodule designated for scanning network protocol packets of a particular protocol" is supported by Appellants' disclosure, 3) whether Maher teaches "a network interface passively monitoring a transient packet stream at a network boundary" as recited in independent claims 1 and 16, and 4) whether Maher teaches "a network interface receiving copies of datagrams transiting a boundary of a network domain into an incoming packet queue, each datagram being copied from a packet stream," as recited in independent claims 32 and 41.

FINDINGS OF FACT

Facts related to rejection based 35 U.S.C. § 112, first paragraph:

Appellants' originally filed Specification, discussing figure 3, states on page 7, line 29 through page 8, line 12:

> The antivirus scanner 32 includes a plurality of protocol-specific scanning submodules 35-38, including submodules for the Hypertext Protocol (HTTP), File Transfer Protocol (FTP), Simple Mail Transport Protocol (SMTP), and Network News Transport Protocol (NNTP), although other upper layer network protocols could also be implemented, as would be recognized by one skilled in the art.
>
> Through each protocol-specific submodule 35-38, the antivirus scanner 32 retrieves each re-assembled packet from the appropriate

> protocol-specific queue 41 for scanning using standard antivirus techniques, as are known in the art. Upon detecting the presence of an infected message, the antivirus scanner 32 logs the occurrence in a log 47. In addition, the antivirus scanner 32 can optionally generate a warning 46 to the network administrator or other appropriate user. As well, the antivirus scanner 32 can optionally "spoof" the origin server by sending a legitimate packet in place of the infected packet. The legitimate packet is placed as an outgoing packet 49 in the outgoing packet queue 48 for sending over the internetwork via the network interface 34.

We find that this passage demonstrates that at the time of the invention Appellants had possession of the concept of an antivirus scanner which contains several submodules. Each of these protocol-specific submodules retrieves packets from a protocol-specific queue, i.e. the FTP submodule retrieves packets from the FTP queue. The passage does not discuss a protocol-specific submodule retrieving a packet from a different protocol-specific queue, i.e. there is no disclosure of the FTP submodule retrieving a packet from the SMTP queue. Further, as these submodules are part of the antivirus scanner and there is no disclosure of a separate antivirus scanner, one skilled in the art would recognize that the submodules perform the scanning functions.

Appellants' originally filed claims do not include a limitation reciting "wherein each of a plurality of protocol-specific modules process each reassembled datagram based on an upper protocol layer employed by the reassembled datagram."

Facts relating to the rejections based upon Maher:

Appellants' Specification does not define the term "passive screening." However, on page 3 of Appellants' originally filed Specification, "passive screening" is described as not causing an interruption

of an incoming data packet stream. This is compared with "active packet scanners" which interrupt the flow of the packet stream. We further note that Appellants' Specification discusses passive screening as not affecting message traffic through the network domain boundary. (Specification 10.)

Maher teaches a processor that scans the entire content of a data packet as it transitions a network point. *See* Abstract. The processor is able to identify the contents of data packets transitioning the network. (Col. 5, ll. 16-20.) The processor can then perform functions on the data packets to identify and filter out security problems (e.g. viruses, worms etc.) and also allow metering of network traffic. (Col. 5, ll. 27-36.) To perform these functions, the processor must reassemble the data packet fragments to form data packets. (Col. 6, ll. 1-7.) Network traffic flows through the processor, and as such, the processor must maintain high throughput speeds. (Col. 8, l. 60-Col. 9, l. 5.)

PRINCIPLES OF LAW

The written description requirement serves "to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him; how the specification accomplishes this is not material." *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). In order to meet the written description requirement, the Appellant does not have to utilize any particular form of disclosure to describe the subject matter claimed, but "the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). Put another way, "the applicant must . . . convey with reasonable clarity to those skilled in the art that, as of the filing

date sought, he or she was in possession *of the invention*." *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991). Finally, "[p]recisely how close the original description must come to comply with the description requirement of § 112 must be determined on a case-by-case basis." *Eiselstein v. Frank*, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (quoting *Vas-Cath*, 935 F.2d at 1562, 19 USPQ2d at 1116).

Office personnel must rely on Appellants' disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980, 34 USPQ2d 1321, 1330 (Fed. Cir. 1995). "[I]nterpreting what is *meant* by a word *in* a claim 'is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.'" *In re Cruciferous Sprout Litigation,* 301 F.3d 1343, 1348, 64 USPQ2d 1202, 1205, (Fed. Cir. 2002) (emphasis in original) (citing *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053, 12 USPQ2d 1474, 1476 (Fed.Cir.1989)).

ANALYSIS

Analysis related to rejection based 35 U.S.C. § 112, first paragraph:

The first issue related to the Examiner's rejection under 35 U.S.C. § 112, first paragraph, hinges on claim interpretation. As discussed *supra*, Appellants' originally filed Specification does not demonstrate that, at the time of filing, Appellants possessed a protocol-specific submodule retrieving a packet from a different protocol-specific queue. Claim 32 recites "wherein each of a plurality of protocol-specific modules process each reassembled datagram based on an upper protocol layer employed by the reassembled datagram." Independent claim 41 contains a similar limitation. We concur

with the Examiner's interpretation that these claims recite that each protocol-specific submodule retrieve each reassembled datagram. Appellants' proffered interpretation, in essence, reads out the second recitation of "each," Appellants' interpretation would be proper if the claim recited "wherein each of a plurality of protocol-specific modules process ~~each~~ reassembled datagram based on an upper protocol layer employed by the reassembled datagram." We chose not to read limitations out of the claims. During prosecution, Appellants are free to amend the claims. Thus, we do not find that Appellants' originally filed Specification demonstrates that Appellants at the time of filing possessed the invention as claimed in independent claims 32 and 41. Claims 33 through 38, 40, 42 through 47 and 49 through 54 are dependent upon either claims 32 and 41. Accordingly, we sustain the Examiner's rejection of claims 32 through 38, 40 through 47, and 49 through 54 under 35 U.S.C. § 112, first paragraph, as failing to meet the written description requirement and the accompanying objection to the Specification.

The second issue related to the Examiner's rejection under rejection under 35 U.S.C. § 112, first paragraph, only applies to claims 53 and 54 and hinges on our findings related Appellants' disclosure. Claims 53 and 54 recite the protocol-specific submodules scanning the data packets. As discussed *supra* in the findings of fact, we find that one skilled in the art would recognize that the protocol-specific submodules are part of the antivirus scanner and as such the protocol-specific submodules perform the scanning functions. Thus, while we sustain the Examiner's rejection of claims 53 and 54 under 35 U.S.C. § 112, first paragraph, because they depend upon claim 32, we do not sustain the Examiner's rejection of claims

53 and 54 under 35 U.S.C. § 112, first paragraph, as it relates to the limitation of submodules scanning.

Analysis relating to the rejections based upon Maher:

The first issue related to the Examiner's rejection based upon Maher hinges on claim interpretation. The preamble of independent claim 1 recites "passive screening" and the body of the claim recites "a network interface passively monitoring a transient packet stream at a network boundary." Independent claim 16 recites similar limitations. As discussed *supra*, Appellants' Specification discusses "passive screening" as not causing an interruption of an incoming data packet stream. Thus, we consider the scope of claims 1 and 16 to be so limited.

As discussed *supra*, Maher teaches a content processor which reassembles/reorders the monitored data so that a scan can be performed. Since Maher's processor is in the data steam, this reassembling/reordering the data interrupts the data stream. Thus, we find that Maher's device is actively screening the data stream, not passively screening as recited in claims 1 and 16. Thus, we do not find that Maher anticipates independent claims 1 and 16. Claims 2 through 10, 13, 14, 17 through 25, 28, 29, 31, and 55 all depend upon either claim 1 or 16. Accordingly, we will not sustain the Examiner's rejection of claims 1 through 10, 13 through 14, 16 through 25, 28, 29, 31, and 55 under 35 U.S.C. § 102(e).

Similarly, the second issue related to the Examiner's rejection based upon Maher hinges on claim interpretation. Independent claims 32 and 41, recite "passive screening" in their preamble and the body of the claims recite "a network interface receiving copies of datagrams transiting a boundary of a network domain ... each datagram being copied from a packet stream." It

is generally understood that when a copy of something is made it refers to creating a duplicate. This meaning of the term is supported by Appellants' Specification; see, for example, the discussion of duplicate packets and copies on pages 3 and 4. Thus, we find that the scope of claims 32 and 41 include that passive screening (where the data stream is uninterrupted) is performed in part by making a copy (duplicate) of the packets in the data stream and placing the copy into an incoming packet queue. As discussed *supra*, we do not find that Maher teaches or suggests a passive screening system. We do not find that the Examiner has demonstrated that Maher teaches or suggests making a copy (duplicate) of the packets in the data stream. Further, the Examiner has not asserted, nor do we find that Stevens, the second reference relied upon to reject claims 32 and 41, teaches or suggests such features. Claims 33 through 35, 38, 42 through 44, 47, 50 and 52 depend upon one of claims 32 or 41. Accordingly, we will not sustain the Examiner's rejection of claims 32 through 35, 38, 41 through 44, 47, and 50 through 52 under 35 U.S.C. § 103(a) as being unpatentable over Maher in view of Stevens.

We note that the Examiner has rejected dependent claims 15, 30, 36, 37, 40, 45, 46, 49, 53, and 54 under 35 U.S.C. § 103(a) as being unpatentable over Maher in view of other teachings. These rejections build on the rejections of independent claims 1, 16, 32, and 41. The Examiner has not asserted, nor do we find that these additional teachings make up for the noted deficiencies in the rejections of the independent claims. Accordingly, we will not sustain the Examiner's rejections of claims 15, 30, 36, 37, 40, 45, 46, 49, 53, and 54 under 35 U.S.C. § 103(a).

CONCLUSION

We affirm the Examiner's rejection of claims 32 through 38, 40 through 47, and 49 through 54 under 35 U.S.C. § 112, first paragraph. We reverse the Examiner's rejection under 35 U.S.C. § 102(e) and all rejections under 35 U.S.C. § 103(a). The decision of the Examiner is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED-IN-PART

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